

FIG. 1

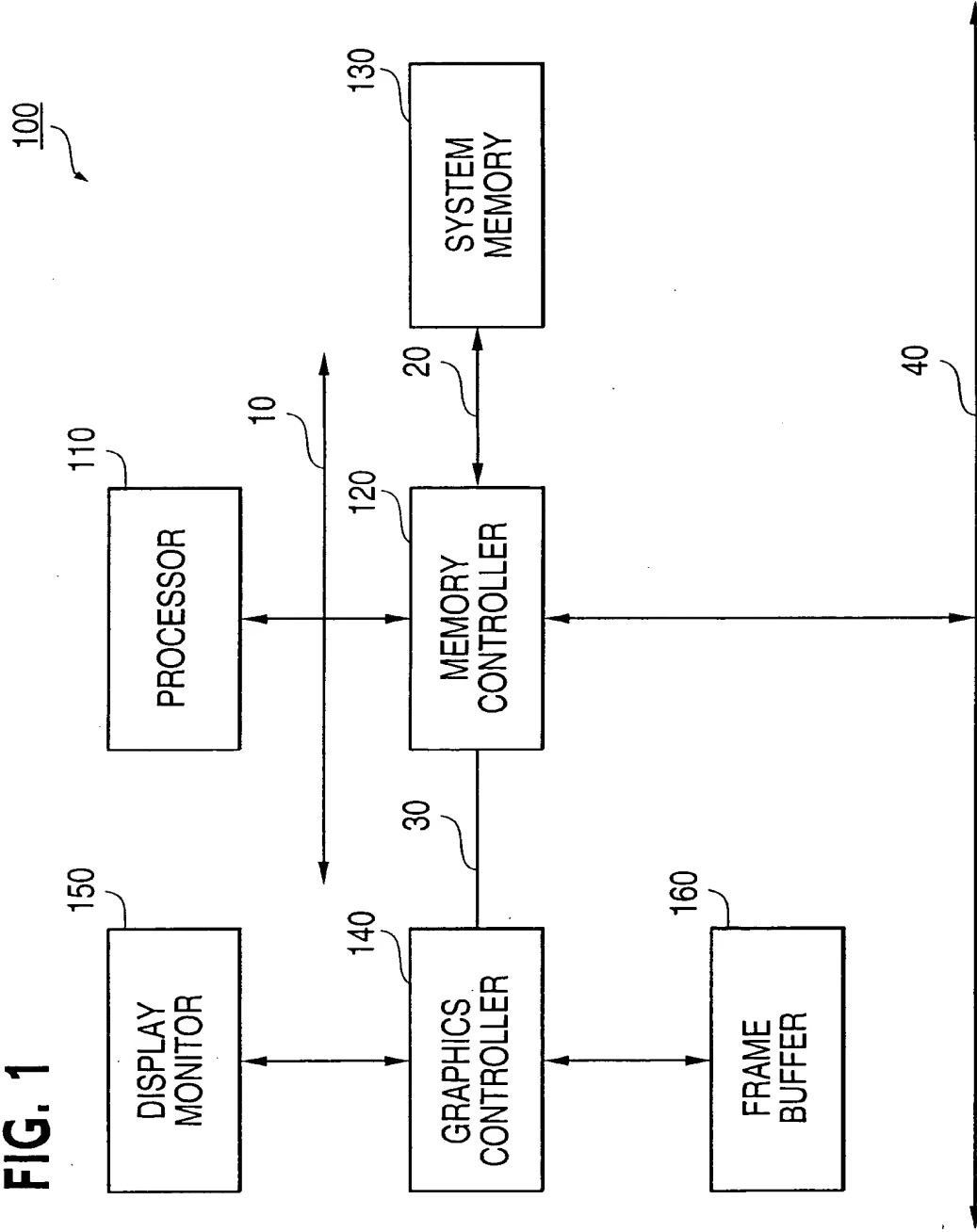


FIG. 2

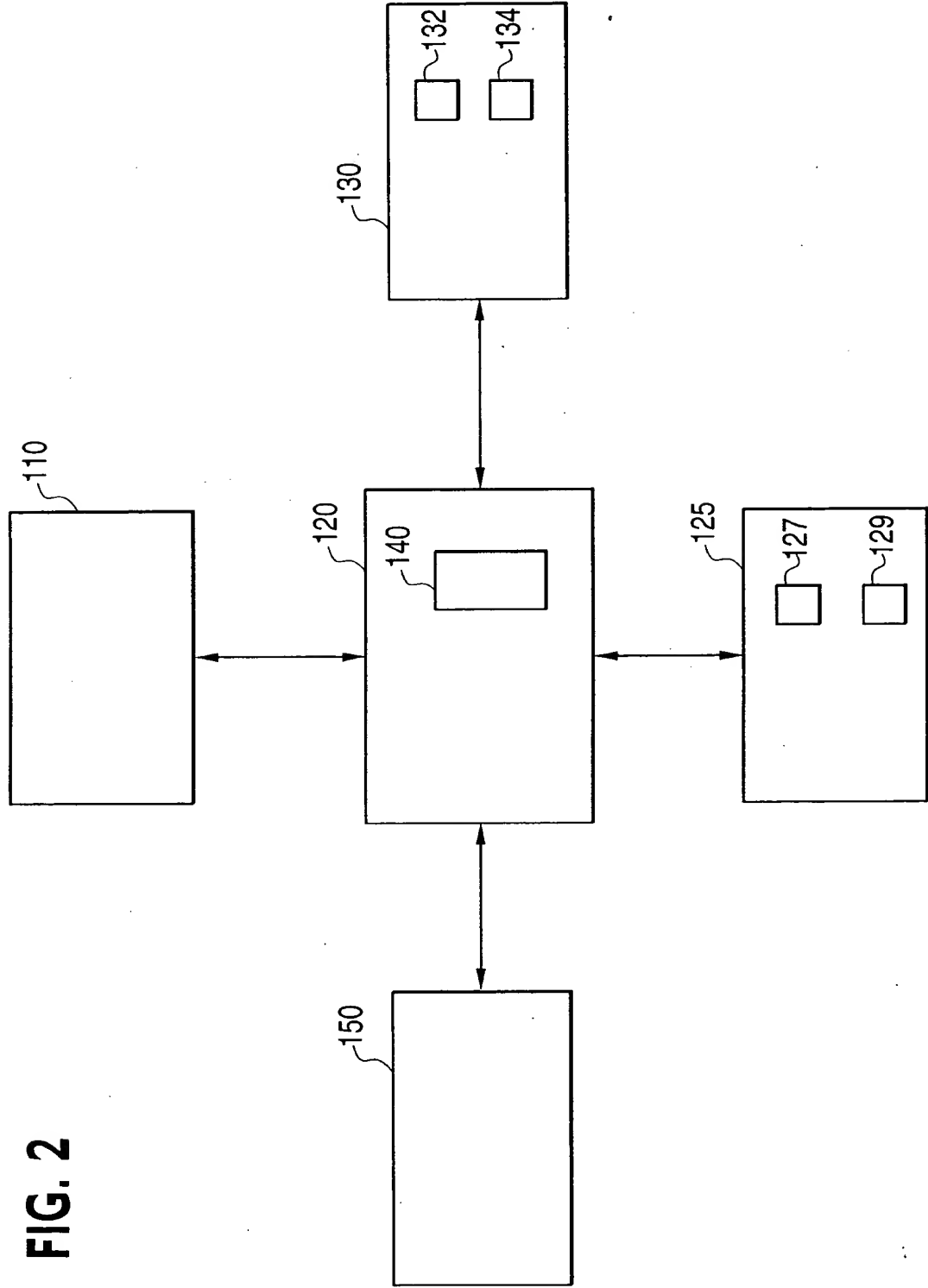


FIG. 3

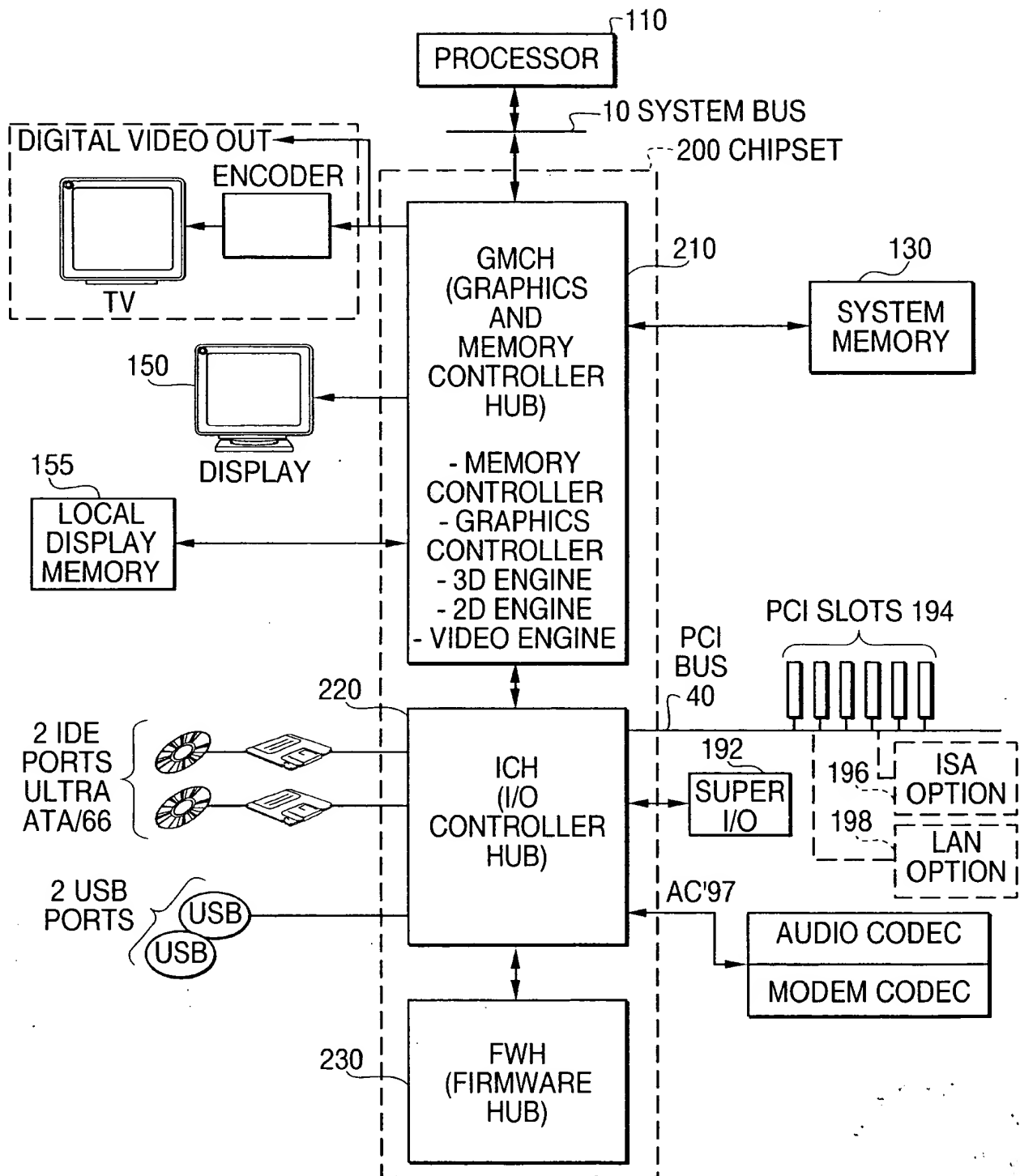


FIG. 4

The diagram illustrates a graphics controller (GMCH) and its connections. The GMCH is a large rectangular block containing several sub-components:

- GRAPHICS CONTROLLER (140)**: The main functional block, which includes:
 - DISPLAY ENGINE (190)**: A dashed box containing:
 - HW MOTION COMP (198)**: Connected to **DAC (196)**.
 - OVERLAY ENGINE (194)**: Connected to the **DAC (196)**.
 - HW CURSOR (192)**: Connected to the **DAC (196)**.
 - DIGITAL VIDEO OUT PORT (185)**: Receives data from the **OVERLAY ENGINE (194)** and outputs **DIGITAL VIDEO OUT**.
 - 3D ENGINE (170)**: A dashed box within the **GRAPHICS CONTROLLER**.
 - 2D ENGINE (180)**: A dashed box within the **GRAPHICS CONTROLLER**.
- TEXTURE PALETTE (213)** and **SUBPICTURE PALETTE (215)**: Connected to the **GRAPHICS CONTROLLER**.
- GMCH**: The overall graphics controller block.

External connections and components:

- SYSTEM BUS INTERFACE (212)**: Connected to the **GRAPHICS CONTROLLER** and a **SYSTEM BUS** (10).
- MEMORY CONTROLLER**: Connected to the **GRAPHICS CONTROLLER** and **SYSTEM MEMORY (130)** and **LOCAL DISPLAY MEMORY (155)**.
- HUB INTERFACE**: Connected to the **GRAPHICS CONTROLLER** and a **HUB** (TO ICH).
- ANALOG DISPLAY OUT (192)**: Output from the **DAC (196)**.
- DIGITAL VIDEO OUT**: Output from the **DIGITAL VIDEO OUT PORT (185)**.

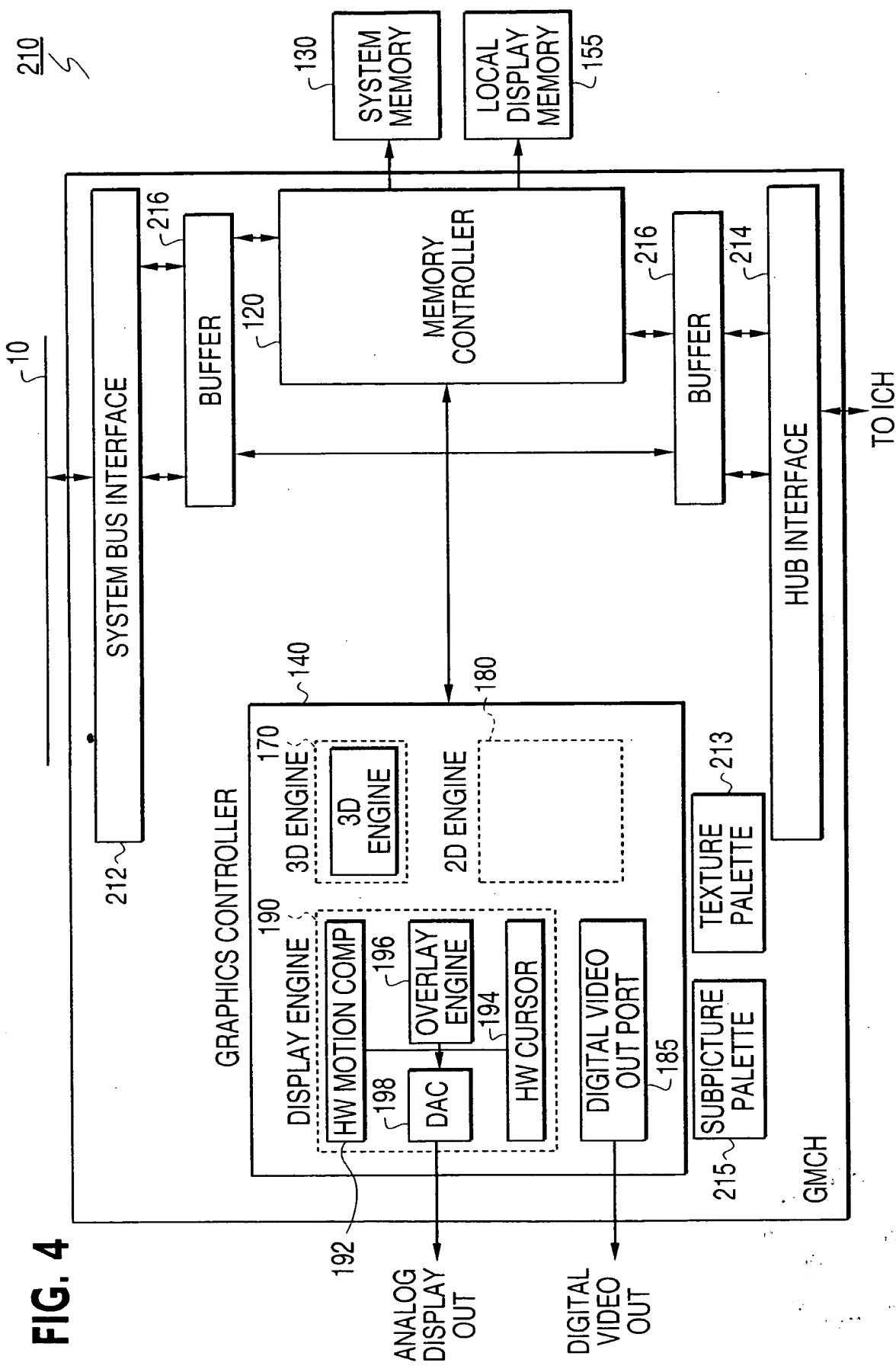


FIG. 5

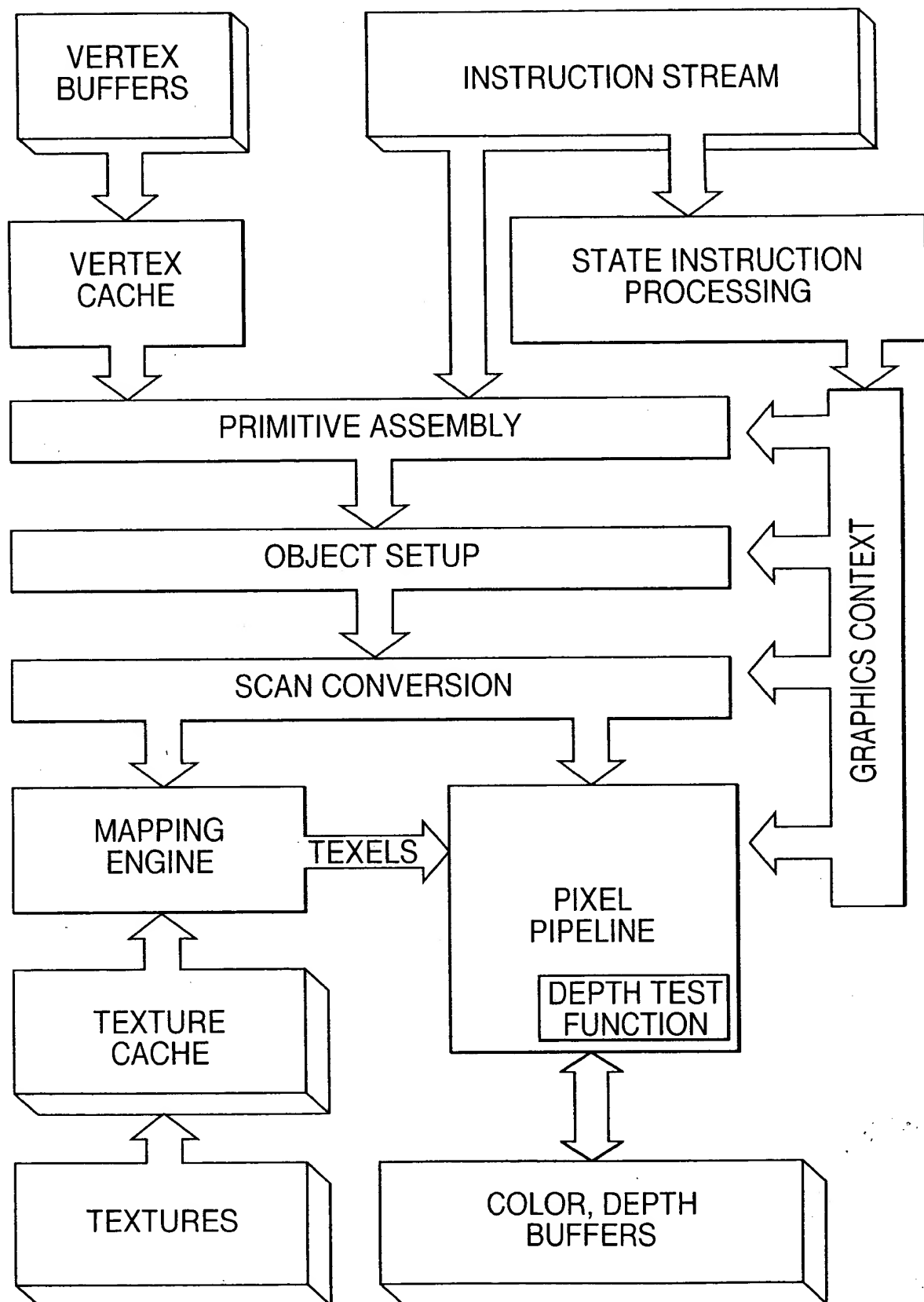


FIG. 6 is a graph showing the relationship between the ratio of the width of the screen to the width of the eye (W/Wfar) and the ratio of the distance from the eye to the screen (Z/Zfar) for a given eye size (Wfar) and screen size (Zfar). The graph shows that the ratio W/Wfar is a function of the ratio Z/Zfar, and the curve is labeled "Screen Z".

FIG. 6

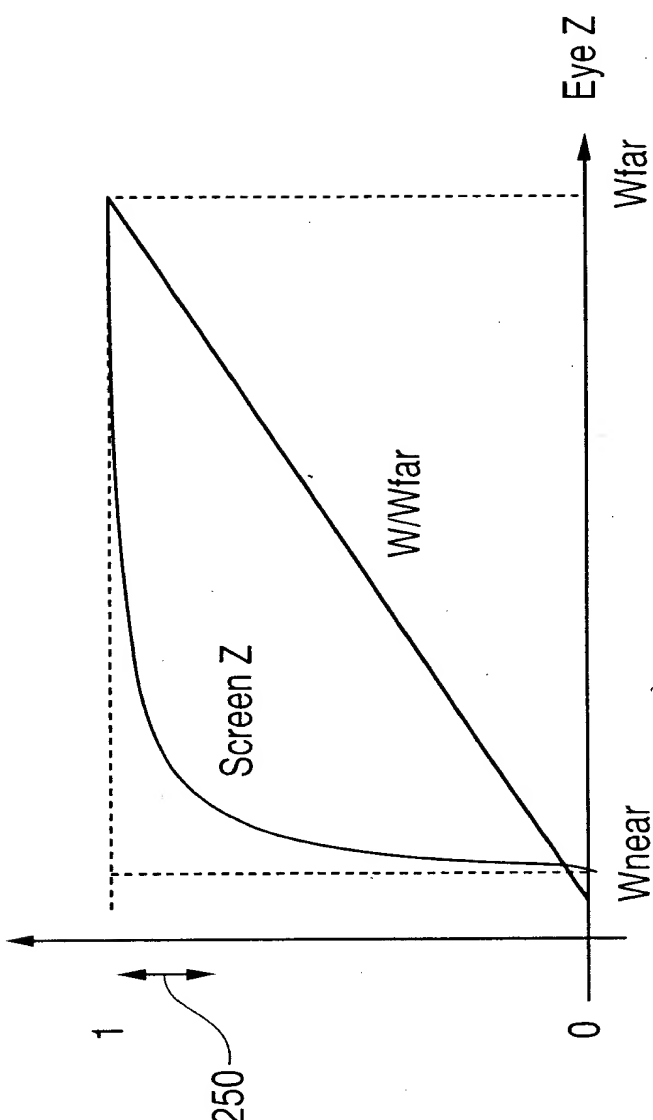


FIG. 7

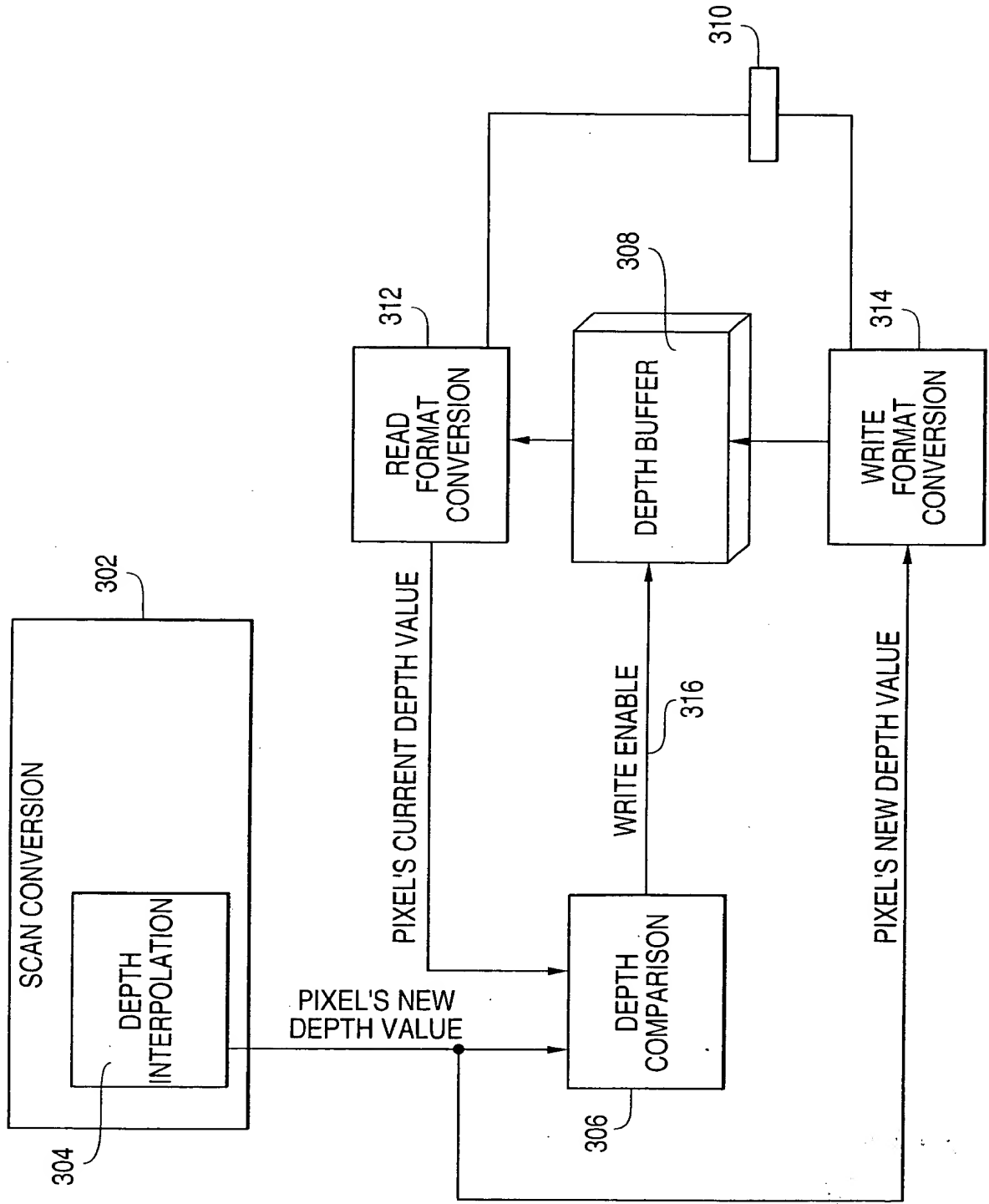
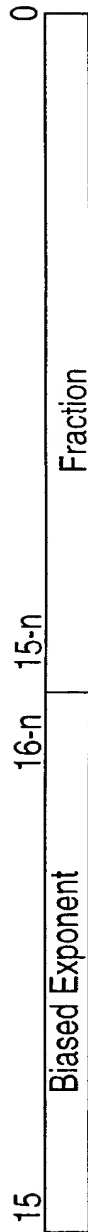
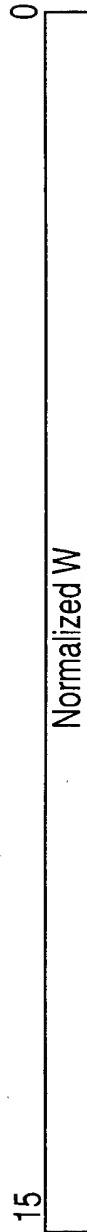


FIG. 8A



Bit	Description
15: 16-n	Biased Exponent: Format: n-bit unsigned biased exponent, where n= WExponentSelect. The exponent is biased by 2^n .
15-n:0	Fraction: Format: (16-n)-bit fractional portion of the floating point significand.

FIG. 8B

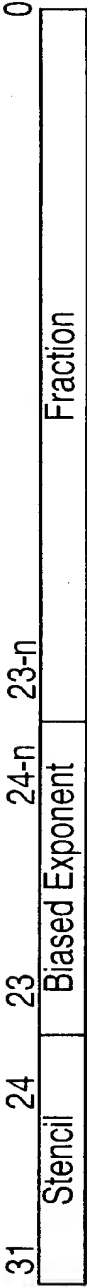


Bit	Description
15:0	Normalized W (W/Wfar): Format: U0.16 Range = [0, 1]

FIG. 8C

Biased Exponent (n bits) $\text{exp} = 0.2^{n-1}$	Significand		Represented Value (W/WFar) $1.\text{frac} * 2^{(\text{exp}-2^n)}$
	Integer	Fraction	
	1	frac	

FIG. 9A



Bit	Description
31:24	Stencil: Format: U8 Range = [0,255]
23:24-n	Biased Exponent: Format: n-bit unsigned biased exponent, where $n = W_{\text{ExponentSelect}}$. The exponent is biased by 2^n .
23-n:0	Fraction: Format: (16-n)-bit fractional portion of the floating point significand.

FIG. 9B



Bit	Description
31:24	Stencil: Format: U8 Range = [0,255]
23:0	Normalized W (W/W_{far}): Format: U0.24 Range = [0, 1]